Proposal # 2001	L201	(Office Use Only)

PSF	Cover Sheet (Attach to the front of ea	ach proposa	1)
Prop	osal Title: Sacramento River Fish	n Screen	Program Vertical River Pump Diversions
App	licant Name: <u>USDA Natural Resour</u>	rces Cons	servation Service
O	test Mamor Dam C Martunn		
N /	ling Address: 100 Sunrise Blyd.	Suite B.	Colusa, CA 95932
Tele	mhone: (530) 458-2 <u>931 ext</u>	102	
T	(530) 458-3683		
Ema	il: <u>Dan.Martynn@ca.usd</u>	a.gov	
	•		
Am	ount of funding requested: \$ <u>2, 33</u>	6,600	and the second s
Som	ne entities charge different costs dependent	on the source	ce of the funds. If it is different for state or federal
	ds list below.		
Stat	e cost	Federa	al cost
	•	,	
Cos	st share partners?	XY	Yes No
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		ons incl	ude \$100,000 EOIP FINANCIAL assistance
fro	om NRCS and \$200,000 financia	IT IIOM C	A FIBI and Dame
Ind	licate the Topic for which you are apply	ing (check (only one box).
	Natural Flow Regimes		Beyond the Ripanan Comdon
	Nonnative Invasive Species		
	Channel Dynamics/Sediment Transport		Environmental Education
	Flood Management		Special Status Species Surveys and Studies
	Shallow Water Tidal/ Marsh Habitat	□ .	Fishery Monitoring, Assessment and Research
	Contaminants	区	Fish Screens
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			· · · · · · · · · · · · · · · · · · ·
W	nat CALFED ecozone is the project loca	ted in? See	attached list and indicate number. Be as specific as
pos	ssible Sacramento River. Chico	Landing	to Verona (3.3, 3.4)
		•	
Inc	licate the type of applicant (check only on	.e box):	
	State agency	查	Federal agency
	Public/Non-profit joint venture		Non-profit
	Local government/district	. 🗖	Tribes
	University		Private party
□	Other:		

Indicate the primary speci	es which the propos	sal addres	sses (check all that apply)	:	
□ San Joaquin and East-si	de Delta tributaries f		nook salmon	_	
□ Winter-run chinook salı			Spring-run chinook salmon	.1	
Late-fall run chinook sa	ılmon		Fall-run chinook salmon		
□ Delta smelt			Longfin smelt		
□ Splittail		超	Steelhead trout		
□ Green sturgeon			Striped bass		
□ White Sturgeon		幫	All chinook species		
□ Waterfowl and Shorebi	rds	3 2	All anadromous salmonid	\$	
□ Migratory birds			American shad		
□ Other listed T/E specie	es:			•	
Indicate the type of project	ct (check only one b	oox):			
□ Research/Monitoring			Watershed Planning	•	٠,
Pilot/Demo Project		□	Education		
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If yes, list project title and CALI	#1425-	.99-AA-	20-17700	ne Bay Delta	Solutio
Have you received funding from	n CVPIA before?	Yes_	No <u>x</u>	•	
If yes, list CVPIA program pro	viding funding, project tit	te and CVF	PIA number (if applicable):		
 The individual signing entity or organization) The person submitting discussion in the PS 	representations in their p g the form is entitled to so); and g the application has rea	proposal; ubmit the ap Id and under Ives any an	plication on behalf of the applicates tood the conflict of interest and id all rights to privacy and confidention.	confidentiality	
Dan Z. Martynn Printed name of applicant					
Signature of applicant (1				

B. Executive Summary

Sacramento River Small Fish Screen Project Vertical River Pump Diversions

Requested Amount: \$ 2,336,600

Natural Resources Conservation Service 100 Sunrise Boulevard, Suite B Colusa, CA 95932-0000 Family Water Alliance P.O. Box 365 Maxwell, CA 95955

(530) 458-2931 Extension #3,

FAX: (530) 458-3683

E-mail: Dan.Martynn@ca.usda.gov

Participants and Collaborators:

The Sacramento River Small Fish Screen Project is a cooperative effort between the Natural Resources Conservation Service (NRCS); Colusa, Glenn and Sutter County Resource Conservation Districts; Family Water Alliance (FWA); California Department of Fish and Game; National Marine Fisheries Service; US Fish and Wildlife Service; US Army Corp of Engineers; National Fish and Wildlife Foundation; and private Landowners.

The project addresses CALFED's high priority goal of screening diversions on the Sacramento River, reducing entrainment and advancing screen technology by demonstrating the highly useful retrievable feature in screen design.

Extensive efforts to screen major diversions on the Sacramento River are ongoing and considered a high priority for realization of significant increases in salmon populations. While most large diverters have access to proven technology for intake screening, the same level of design is not available to small diverters (up to 40 cfs) on the Sacramento River. Landowners are hesitant to screen diversions without a proven method for screening. Through this project, landowners will receive technical and financial assistance in all phases of screening. This includes planning and design of screens, obtaining permits, construction, installation, monitoring, and funding.

On the Sacramento River, approximately 20 percent of the almost 800 diversions are vertical pump systems. Currently, there is no known retrievable technology available to screen vertical pump intakes. However, this grant provides funding to explore and develop the necessary technology to address vertical diversions, while refining slant pump science. The project also emphasizes technological development for vertical pumps that may include on and/or off site testing. The project will include characterization of pre-project conditions, testing of alternatives in technology, post installation evaluation and monitoring, and recommended operations and maintenance guidelines. The project proponents realize that although rock riprap protects the infrastructure of fish screens riprap can seriously impair the ability of the stream to migrate. This conflicts with the ERP goal of restoring dynamic river processes. Alternative methods of fish screen protection will be explored.

Project uncertainties include the following: variability in river conditions, site location, and pump size; effects of sediment and debris; cost effectiveness for landowners; ongoing operations and maintenance requirements; adequate funding levels for development of needed technology; and the fact that no reliable screen design has been identified for use on small Sacramento River diversions.

The hypothesis tested by this proposal is that new challenges with regard to retrievability will accompany the installation of positive barrier fish screens on vertical pump diversions. The expected outcome is the development and testing of new technologies for vertical pump screening and continued refinement of slant pump technology.

C. Project Description

1. Statement of the Problem

a. Problem

The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) has classified numerous fish species as threatened or endangered under the Endangered Species Act. The Natural Resources Conservation Service (NRCS) and Family Water Alliance (FWA) have assisted landowners in the design and installation of positive barrier fish screens since 1997. It became clear almost immediately that off-the-shelf screening technology did not operate dependably with the fine sands and sediment load of the Sacramento River. Landowners were left without successful fish screen options to incorporate with the NMFS Salmon Recovery Plan, which calls for the screening of all diversions in California by the year, 2007.

In 1998 The Bureau of Reclamation contracted with NRCS to administer \$900,000.00 from CALFED for a small diversion fish screen program. Currently, six screens, on slant pump systems, are in the process of installation and expected to be operational by the summer of 2000. Three additional slant pump designs will be designed and installed under the original contract. FWA was awarded a grant in FY2000 for monitoring of current projects, which NRCS has been asked to administer. Monitoring will determine the unique characteristics of each system, which will help identify the operations and maintenance required for successful screen operation. Knowledge gained from the initial contract and the monitoring grant will be used in future projects.

There are approximately 200 known vertical pump diversions in the Sacramento River. Fish screen solutions for slant pump diversions do not address the unique problems of vertical pumps. This pilot project focus' attention on the successful development of positive barrier fish screens for vertical pumps.

b. Conceptual Model

The work proposed for this CALFED grant will implement a pilot project to screen high priority vertical pump fish screens by:

- Providing custom design and installation of positive barrier fish screens on vertical pump systems.
- Providing complete on-site inspection of each project.
- Monitoring these installations to determine specific requirements of each system and positive impacts on the ecological and physical processes of the fishery resources.
- Documenting operations and maintenance for each system.
- · Developing operation and maintenance guidelines.
- Documenting and archiving all data so that the information is available for future projects.

NRCS and FWA are committed to refining the conceptual model for small fish screens and successfully completing positive barrier fish screens on vertical pump systems. All knowledge gained will be made available to guide future fish screen projects and increase the effectiveness of fish screen technology.

c. Hypotheses Being Tested

The hypothesis tested by this proposal is that vertical pump diversions differ from slant pump diversions so that installation of each different screening system is faced with distinct problems. Knowledge gained by the installation of fish screens on vertical pump diversions will lead to improved technology for application to diversions within the greater CALFED area. Once technology is developed and proven, diverters will be more amenable to screening their agricultural diversions, thereby contributing to salmon and other fishery resources recovery.

d. Adaptive Management

National Marine Fisheries Service has proposed a Salmon Recovery Plan that calls for the screening of all diversions in California by the year 2007. Positive barrier fish screens are the accepted method of screening; however, there is a lack of proven technology for screening small agricultural diversions. This pilot project will implement screening on vertical pumps, demonstrate retrievable screen technology, and refine slant pump screen technology.

Project monitoring will address critical uncertainties of new technologies and provide a knowledge base of successful techniques and identification of proper operations and maintenance. Rock riprap is commonly used to protect the fish screen investment; however, other methods of protection will be investigated and used if feasible.

Each successive year of this multi-year proposal will benefit from the information gathered the previous year. Any project difficulties identified will be resolved and incorporated into new designs. This will ensure success of this pilot program, further reducing entrainment of critical species and benefiting the fisheries resource and adapting CALFED's goals.

e. Education Objectives

NRCS and FWA are currently working closely on fish screen projects within Colusa County. The partnership is committed to expanding fish screening activities throughout the Sacramento Valley, and improving educational and outreach activities through increased integration within the farming community in Colusa and neighboring counties.

Education and outreach by Natural Resource Conservation Service and Family Water Alliance will familiarize stakeholders and others with the purpose and value of fish screens to the resource and to the landowner/farmer. Outreach will recruit diverters into the project and notify the public about positive actions that farmers are taking to help the resource.

Information and results from test installations will be included on the Internet web page: www.mako.com/fwafishforum. This website will address the salmon recovery issue and specifically the small diversion screening project. FWA distributes a quarterly newsletter called the Fish Forum, which is used to educate people on fish screening issues. The Fish Forum is distributed throughout the Sacramento Valley and reaches over 5,000 people in at least seven counties. Articles will also be included in the Colusa County USDA newsletter, which reaches over 1,200 farmers. NRCS and FWA will coordinate activities relating to fish screening projects to reach as broad and diverse an audience within the Sacramento valley and along the Sacramento River Ecological Management Zone as possible.

On-site demonstrations and fish screen seminars will be held when appropriate to further amplify the education/outreach component. The education component will increase the understanding of CALFED's goals relating to entrainment of fish at diversions and identify potential solutions through the reporting process. Newsletters and demonstration projects will address all aspects of the project.

2. Proposed Scope of Work

a. Location and/or Geographic Boundaries of the Project

The location of the installed fish screens will be within the Sacramento River Ecological Management Zone, Chico Landing to Verona. This includes Sutter, Glenn and Colusa Counties. See attached maps for project area boundaries (Attachment A).

Site specific information is not available at this time. However, on the attached maps, candidate sites are noted with a triangle. Refer to the attached pictures, which represent typical examples of vertical diversions.

b. Approach

This project will be a cooperative effort between Family Water Alliance and Natural Resources Conservation Service. The approach of this project start with outreach in a cooperative effort between Family Water Alliance and Natural Resources Conservation Service to identify landowners with vertical pumping systems willing to have a fish screen installed on their system. After selection of an appropriate site, NRCS will start planning and design review on a fish screen to meet site-specific conditions. Family Water Alliance and Natural Resources Conservation Service will assist landowners in obtaining the appropriate permits. After approval of the design, the landowner will select a contractor to construct the fish screen. NRCS will provide construction inspection during installation. After successful installation of the project, NRCS will provide as-built drawings and provide a summary report of the installation to be available eight weeks after successful installation. More than one site may be in the planning, design and/or installation phase at any one time. Monitoring for at least one year and/or an irrigation season will provide information as to the success of new technology and provide the basis for any repairs or system adjustments. A final report will be made discussing which technologies were successful, which were not and recommendations for future projects. Project management will be shared by NRCS and FWA.

c. Monitoring

The vertical pump screen installation(s) will be monitored during the year following installation. Monitoring will include diver observations and videotaping of the fish screen operation, interviews with the diversion operator, documentation of any needed repairs or adjustments, and an evaluation of the hydraulic characteristics of the fish screen. Monitoring results for the vertical pump installations will be compared with those collected previously for slant pump installations. Monitoring is intended to identify any problems with the operations and function of the screen. Adjustments and/or repairs will be made based on monitoring data.

d. Data Handling and Storage

NRCS will be the clearinghouse for information and data gathered from this project and all information will be available at the Colusa field office. The following information will be collected and stored for this project:

- Documentation of the planning, design, installation and monitoring of each individual installed fish screen.
- Photographs of each site pre and post installation.
- As-built drawings.
- All monitoring information including videos, daily logs and necessary repairs or system adjustments.
- Quarterly reports.
- Summary report of the installation of each site to be available eight weeks after installation.
- Final report on each site available when it has been installed and monitored for at least one year and through an irrigation season.
- Final report of the project.

e. Expected Products/Outcomes

The expected outcome is the development and testing of new technologies to screen vertical and slant pumps for reduction of entrainment and demonstrate the effectiveness of retrievable screen design. It is expected that these screens will be economical for farmers to install. Once proven reliable and economical the technology would move from the current R&D phase to application, and program expansion beyond the Sacramento River. It is anticipated that up to ten fish screen systems will be installed during the 5-year period. The first three years will focus primarily on development while the last two years will focus on monitoring and system adjustments.

Adaptive management techniques will be used to monitor projects and to address critical uncertainties of new technologies, providing a data base of successful and proper techniques regarding operations and maintenance. Each year of this multi-year proposal will benefit from the data gathered during the previous year. Any difficulties arising from a project will be resolved and incorporated into new designs, ensuring the success of this pilot program.

f. Work Schedule

None of the tasks listed are considered separable from any other portion of the project. Incremental funding of this project is not feasible or desired. Important milestones include 1) the installation of a vertical pump fish screen and 2) successful operation of a vertical pump fish screen for a full irrigation season. Tasks are broken down for the entire project, not each site. Each fish screen location will have its own unique set of engineering criteria. No sites have been selected at this time. It is anticipated that construction and installation will primarily occur between April and November. Once proven and reliable technology is developed the landowner will assume everyday normal operations and maintenance.

Work Schedule

Tasks		Dates	
Program Level:			
1. Outreach	1-2001	to 1-2005	
2. Education/Information	1-2001	to 1-2006	
3. Project Management	7-2001	to 1-2006	
4. Final Project Report	7-2005	to 1-2006	
5. Engineering Technical and Oversight	7-2001	to 1-2006	
Project Level:			
1. Site review	7-2001	to 1-2005	
 Cost estimation Preliminary engineering Design review & survey Partner cost share 	7-2001	to 3-2005	
3. Permit application3a. Site plan & description	10-2001	to 6-2005	
4. Final design review4a. Agency review4b. Agency approval (for site)	1-2002	to 6-2005	
5. Construction5a. Agency inspection5b. Agency approval	1-2002	to 6-2005	
6. Installation6a. Review and documentation6b. Final inspection and payment	4-2002	to 11-2005	
7. Monitoring7a. Initial and quarterly	4-2002	to 11-2005	
8. Adjustments (if necessary)	9-2002	to 11-2005	
9. Project report9a. Quarterly engineer report9b. Presentations9c. Final project report	4-2002	to 1-2006	

g. Feasibility

Natural Resource Conservation Service and Family Water Alliance have demonstrated that working cooperatively with landowners and other partners on current CALFED fish screen

projects is both effective and feasible. Through our cooperative efforts, the installation of seven diversions has been completed (4 cylindrical and 3 Universal Stream Bottom Retrievable flat plate fish screen), two retrievable screens are currently under construction and two more diversions are scheduled for installation this fall. In spite of set backs caused by contractors, weather, river conditions and failures of off-the-shelf technology; the current fish screen program is gaining momentum and many farmers are eager to screen their diversions when proven technology is developed.

All work planned on the fish screen project is contingent on the fabrication and installation of fish screens by contractors during the seasonal limits of the permits. Weather and river conditions will also impact the timing of installations. Prior issues related to contractors used on this project have been resolved and no problems are anticipated in the future. Unfortunately, since the program is new, there is no guarantee that contractors will always meet expectations.

Permits, Notifications and Compliance: All necessary permits, notifications, and other regulatory compliance or approvals will be secured by the individual landowner with assistance from Natural Resources Conservation Service and Family Water Alliance. This includes the following:

State:

- -Lake and Streambed Alteration Agreement Process CDF&G 1603 Permit and CEQA compliance.
- -CWA 401 NOTIFICATION
- -CA RECLAMATION BOARD APPROVAL

Federal:

- -ESA Compliance USF&WS and NMFS consultations
- -CWA 404 NOTIFICATION Nationwide Permit 4 conditions and limitations apply.

Currently, all the appropriate agencies involved with the above permits and agreements are aware of the small diversion fish screening efforts and a designated contact has been identified. No permit constraints are expected with implementation of the fish screen program.

All screens projects will meet or exceed the Fish Screening Criteria of the California Department of Fish and Game, as well as NMFS Fish Screening Criteria for Anadromous Salmonids.

All projects on private property will include written permission from the property owner, not only to conduct the work, but also to allow state and federal agency access as appropriate. Specific property owners are not identified at this time. Once the project is funded, outreach efforts will identify and secure appropriate sites and willing participants.

D. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities

1. ERP Goals and CVPIA Priorities

This proposal addresses the CALFED ERP Goal of implementing fish screen projects on the Sacramento River to reduce entrainment and demonstrate retrievable screen technology. The species targeted for recovery include the Winter-Run, Spring-Run, Late-Fall-Run, Fall-Run of Chinook Salmon, Steelhead and Splittail. Protections will focus on the fry stage of the species.

The screening of diversions will protect endangered fry as they migrate out to sea. Since there are close to 800 small diverters on the Sacramento River identified as stressors, developing technology to screen these diversions will ultimately increase the recovery of salmon population. While many of the larger diverters have been screened or are in the process of being screened, the small diversions have not been screened due to lack of technology and prohibitive cost This project will not only develop dependable technology, but work toward developing cost effective screen applications. The technology would then become commercially available to all diverters on the Sacramento River as well as throughout the Delta.

2. Relationship to Other Ecosystem Restoration Projects

The small screen program will enhance or complement the efforts of CALFED to reduce entrainment of endangered fish species at large and small diversions along the Sacramento River. This project will enhance several other agency efforts to aid salmon recovery along the Sacramento River. This is all part of a cooperative effort among several agencies including California Department of Fish and Game's Unscreened Diversion Program, the Anadromous Fish Screen Program of the CVPIA, and Natural Resource Conservation Service's Fish Screen Program. Other projects within the Sacramento watershed that will benefit from this fish screen project include restoration work on Deer Creek, Mill Creek, Battle Creek and Butte Creek.

3. Requests for Next-Phase Funding (see Attachment B)

4. Previous Recipients of CALFED or CVPIA Funding

Natural Resource Conservation Service was the recipient of a previous CALFED grant as follows:

CALFED# 1425-99-AA-20-17700

Small Fish Screen Program of the Bay Delta Solution

Total funded: \$900,000

Approximately 50% expended

Through our cooperative efforts NRCS and FWA have installed seven diversion (4 cylindrical and 3 Universal Stream Bottom Retrievable flat plate fish screen), two retrievable screens are currently under construction and two more diversions are scheduled for installation this fall.

5. System-Wide Ecosystem Benefits

This project not only complements state and federal programs and projects, but also complements projects within the upper watershed in the Sacramento River including Deer Creek, Mill Creek, Battle Creek and Butte Creek. These projects will benefit by increasing the number of salmon returning to spawn in these areas.

E. Qualifications

Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS) has provided technical and financial assistance to farmers in Colusa County since 1952. The Colusa County NRCS field office has been closely involved in the development of the small diversion fish screen program since it was initiated on the Sacramento River in 1994. The Colusa County field office has maintained a

close-working relationship with all of the partners involved in the Sacramento River Small Diversion Fish Screen Program. These partners include CAL-FED, US Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game, US Bureau of Reclamation, Colusa County Board of Supervisors, Colusa County Resource Conservation District, Family Water Alliance and landowners throughout the county. During the last three years, the Colusa County NRCS field office has delivered a cost share value of \$250,000 through financial and technical assistance on the fish screen program in Colusa County.

Family Water Alliance

Family Water Alliance is a 501©(3) non-profit corporation established in 1991. The primary mission of FWA is to educate the public about rural issues. Five years ago, Family Water Alliance participated in the initiation of the Sacramento River Small Diversion Fish Screen Program, and has been a driving force in the screening of small diversions in Colusa County. During this time, Family Water Alliance has provided overall project management, outreach and education, funding through grants, and represented the landowner on key issues relating to the screening program. Family Water Alliance's primary motto, "As long as there are fish in the river there will be water on the land," demonstrates FWA's commitment to the protection of the fisheries resource.

F. Cost

1. Budget (Attachment C)

2. Cost-Sharing

NRCS will provide limited cost sharing in the form of technical and administrative assistance as shown on Attachment C. There will also be approximately \$100,000 in financial assistance available through the EQIP Program. In addition, FWA will attempt to secure other funding through grant writing efforts. In the past FWA was able to secure over \$259,000 toward the screen projects. It is anticipated that the total cost share available for this project through NRCS and FWA will represent approximately 25 percent of the total.

G. Local Involvement

The fish screen program in Colusa County has been widely publicized through numerous local newspaper articles, newsletter, and public presentations. There has not been any opposition expressed by local government agencies for special interest groups regarding the fish screen program or its effects on local economies or resources. Both the Natural Resources Conservation Service and Family Water Alliance have received special recognition from several agencies regarding their work to develop solutions to fish screening issues.

Education and outreach by Natural Resource Conservation Service and Family Water Alliance will notify neighboring landowners of pending projects. Information and outreach activities will recruit diverters into the project and notify the public about positive actions that farmers are taking to help the resource.

Information and results from test installations will be included on the Internet web page: www.mako.com/fwafishforum. This website will address the salmon recovery issue and specifically the small diversion screening project. FWA distributes a quarterly newsletter called

the Fish Forum, which is used to educate people on fish screening issues. The Fish Forum is distributed throughout the Sacramento Valley and reaches over 5,000 people in at least seven counties. Articles will also be included in the Colusa County USDA newsletter, which reaches over 1,200 farmers. NRCS and FWA will coordinate activities relating to fish screening projects to reach as broad and diverse an audience within the Sacramento valley and along the Sacramento River Ecological Management Zone as possible.

There will not be any negative third party impacts. Positive impacts include protecting the farming industry in the Sacramento valley by allowing farmers to continue diverting water, maintaining community economic stability, and offer new job opportunities such as contractors, dive teams, manufacturers and installers of fish screen and related project materials.

H. Compliance with Standard Terms and Conditions

- (1) FWA agrees to comply with standard terms and conditions as identified in Attachments D and E, except as noted in this proposal.
- (2) Either party may terminate this agreement by a written notice to the other party at least 60 calendar days in advance of the effective date of the termination. FWA will be entitled to reimbursement for expenses incurred prior to termination. FWA will be reimbursed for obligations/commitments that cannot be cancelled at time of termination.
- (3) No member of or delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this agreement, or to any benefit arising from it. However, this does not apply to this agreement to the extent that this agreement is made with a corporation for the corporation's general benefit.
- (4) The program or activities conducted under this agreement will be in compliance with the nondiscrimination provisions contained in Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and American's With Disabilities Act of 1990. They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR-15, Subparts A & B), which provide that no person in the United States shall on the grounds of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance from the U.S. Department of Agriculture or any agency thereof.

I. Literature Cited Fish Screen References

California Department of Fish and Game, Diversion Database

California Department of Fish and Game, Fish Screening Criteria, 4/14/1997

Daniels, R.A. and P.B. Moyle. 1983. Life History of Splittail (Cyprinidae: Pogonichthys macrolepidotus) in the Sacramento-San Joaquin Estuary. Fisheries Bulletin 84:105-117.

Hallock, R.J. 1991. Sacramento River Problems and Opportunities. In A. Lufkin, ed., California's Salmon and Steelhead, University of California Press, Berkeley, California.

Hallock, R.J. and W. F. Van Woert. 1959. A Survey of Anadromous Fish Losses in Irrigation Diversions from the Sacramento and San Joaquin Rivers. California Department of Fish and Game: 45:227-267

Healey, M.C. 1991 Life History of the Chinook Salmon. In C. Groot and L. Margolis, eds. Pacific Salmon Life Histories, University of British Columbia Press, Vancouver, British Columbia.

Hydraulics Division of American Society of Civil Engineers. 1982. Design of Water Intake Structures for Fish Protection. American Society of Civil Engineers, New York.

Mills, T.J., D.R. McEwan, and M.R. Jennings. 1997. California Salmon and Steelhead: Beyond the Crossroads. In D.J. Stouder, P.A. Bisson, and R.J. Naiman, eds., **Pacific Salmon and Their Ecosystems**, Chapman & Hall, New York.

National Marine Fisheries Service, Southwest Region, Fish Screening Criteria for Anadromous Salmonids, January 1997

U.S. Fish and Wildlife Service. 1995. Sacramento-San Joaquin Delta Native Fishes Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon.

Williams, J.E. and C.D. Williams. 1991. The Sacramento River Winter Chinook Salmon. In A. Lufkin, ed., California's Salmon and Steelhead, University of California Press, Berkeley, California.

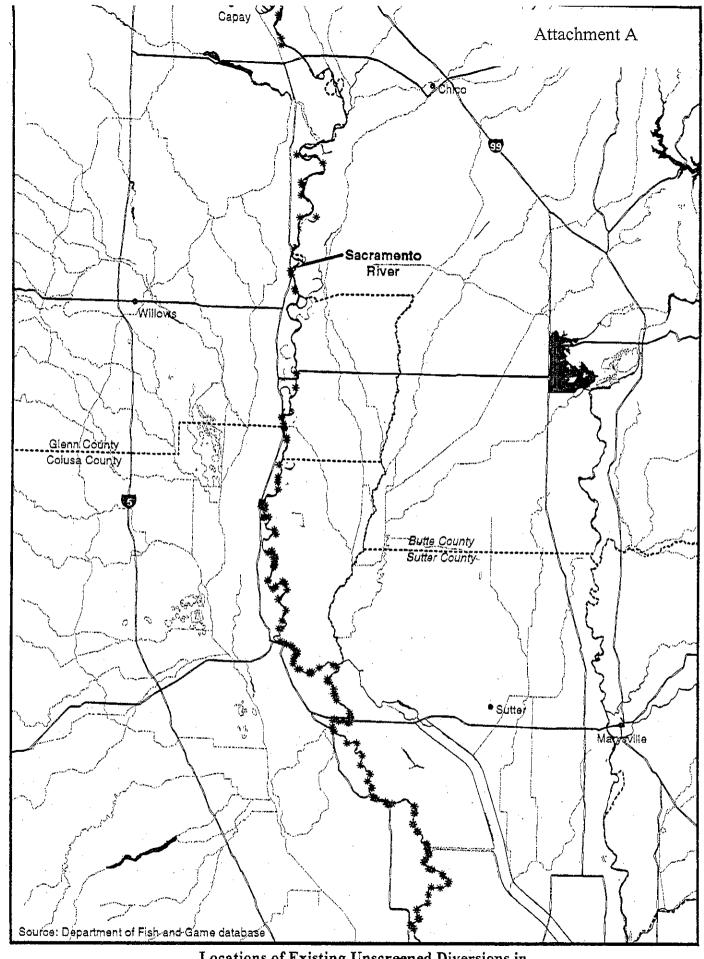
J. Threshold Requirements

Nondiscrimination Compliance - See attached

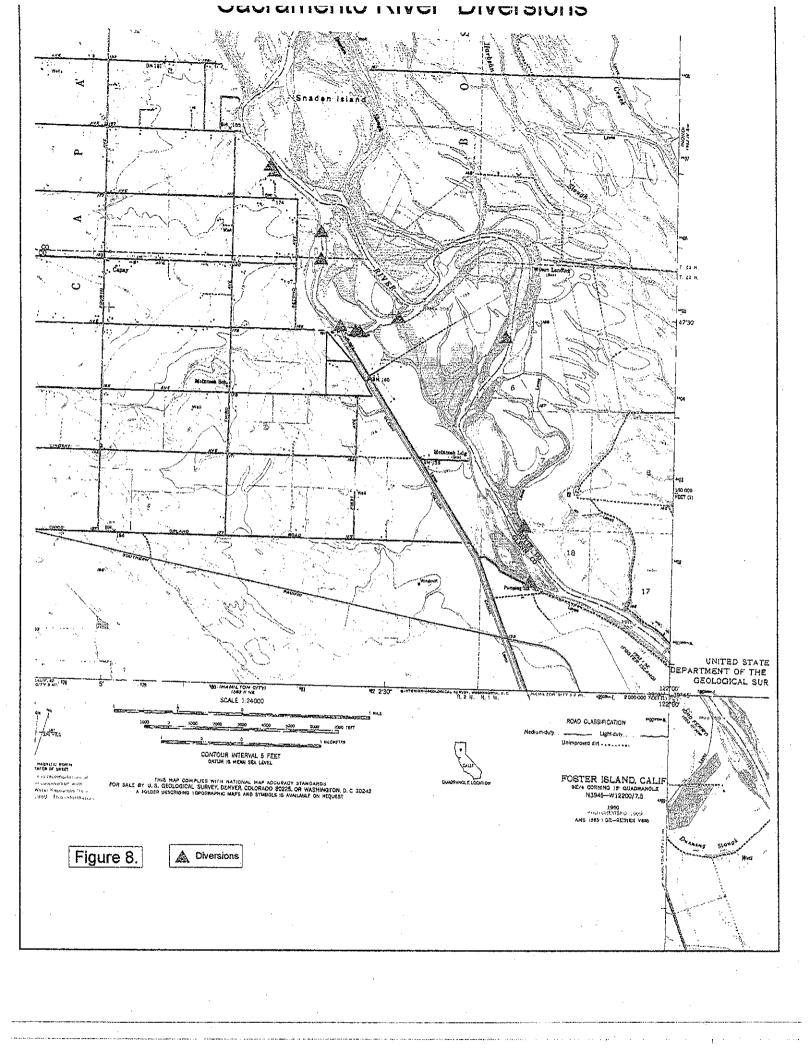
Bidders Bond – Any subcontract agreement that exceeds \$107,000 will include attached bidders bond - See attached

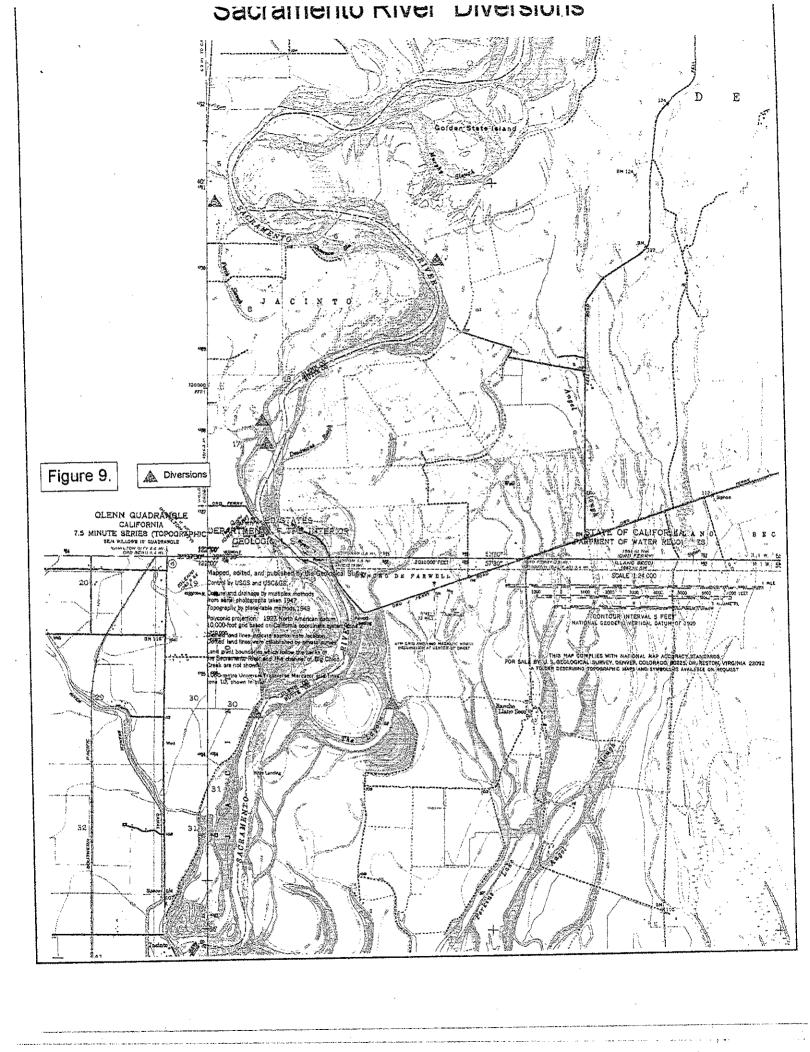
Non Collusion Affidavit - See attached

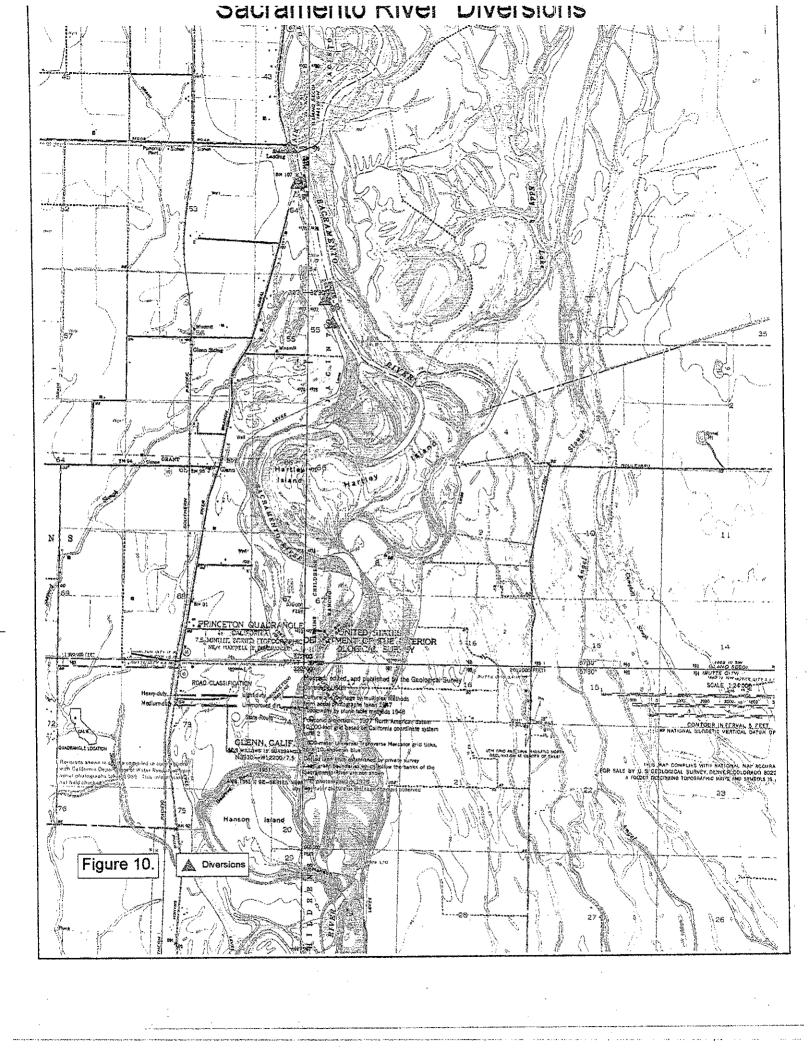
Proof of Contractors License – See non-profit determination letter. Any contracts agreed to will include appropriate business or contractors license.

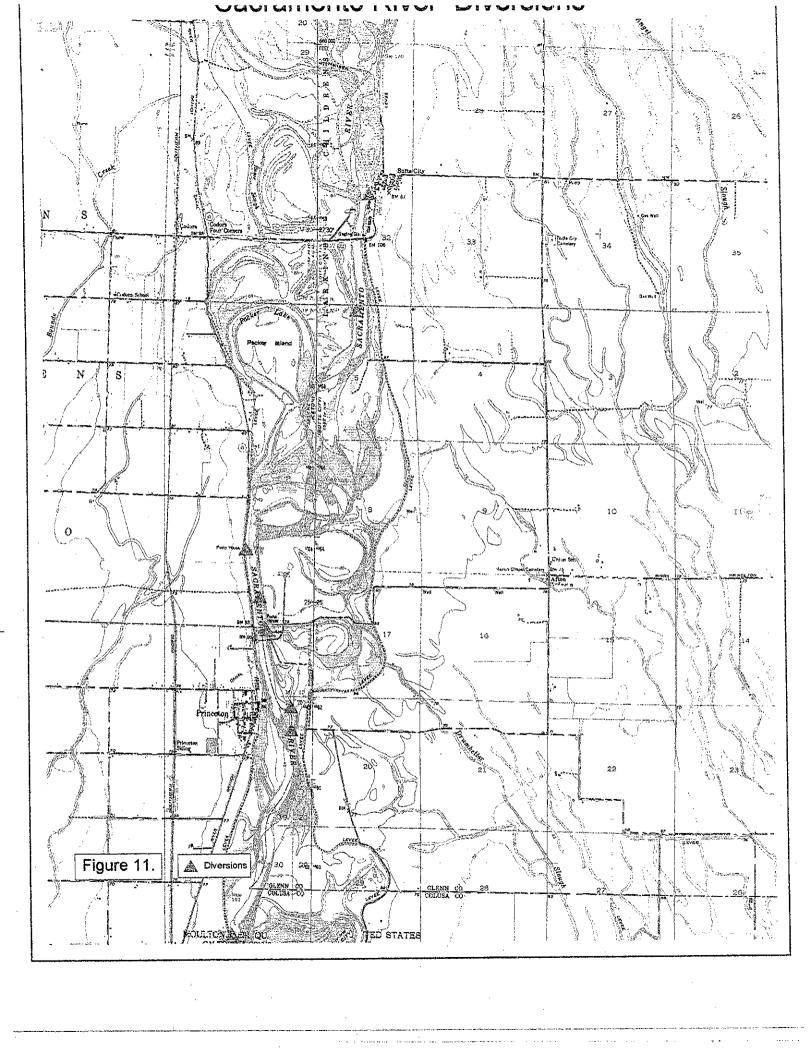


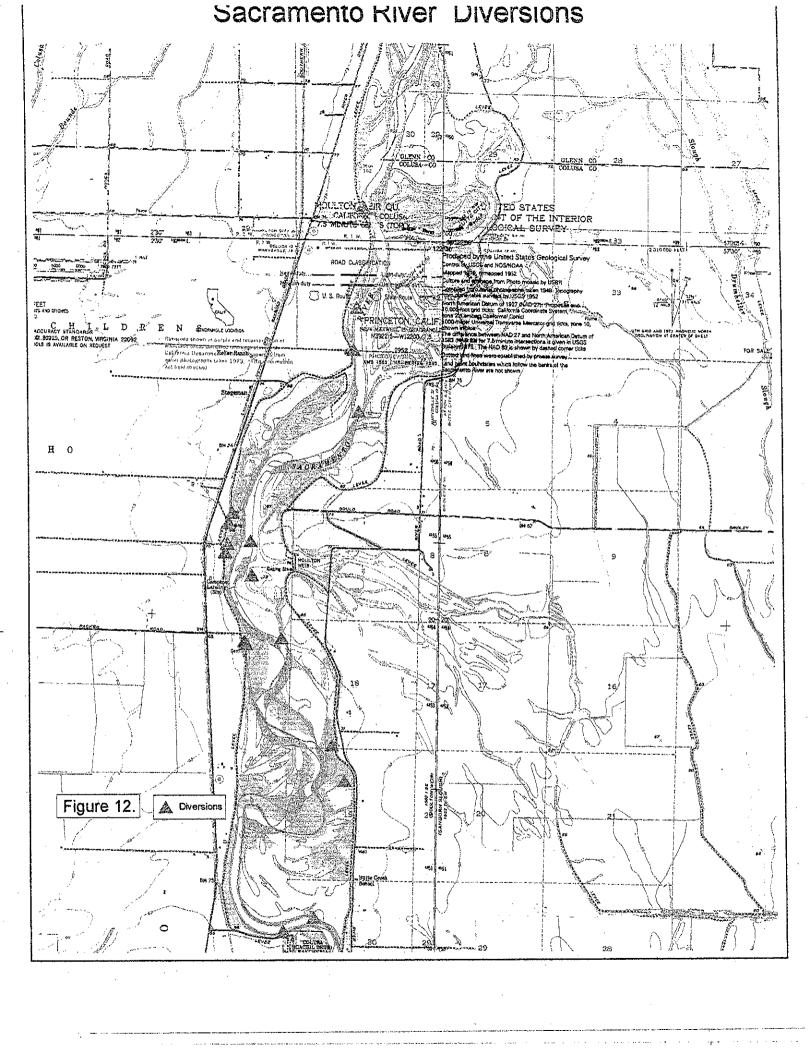
Locations of Existing Unscreened Diversions in Middle Sacramento River

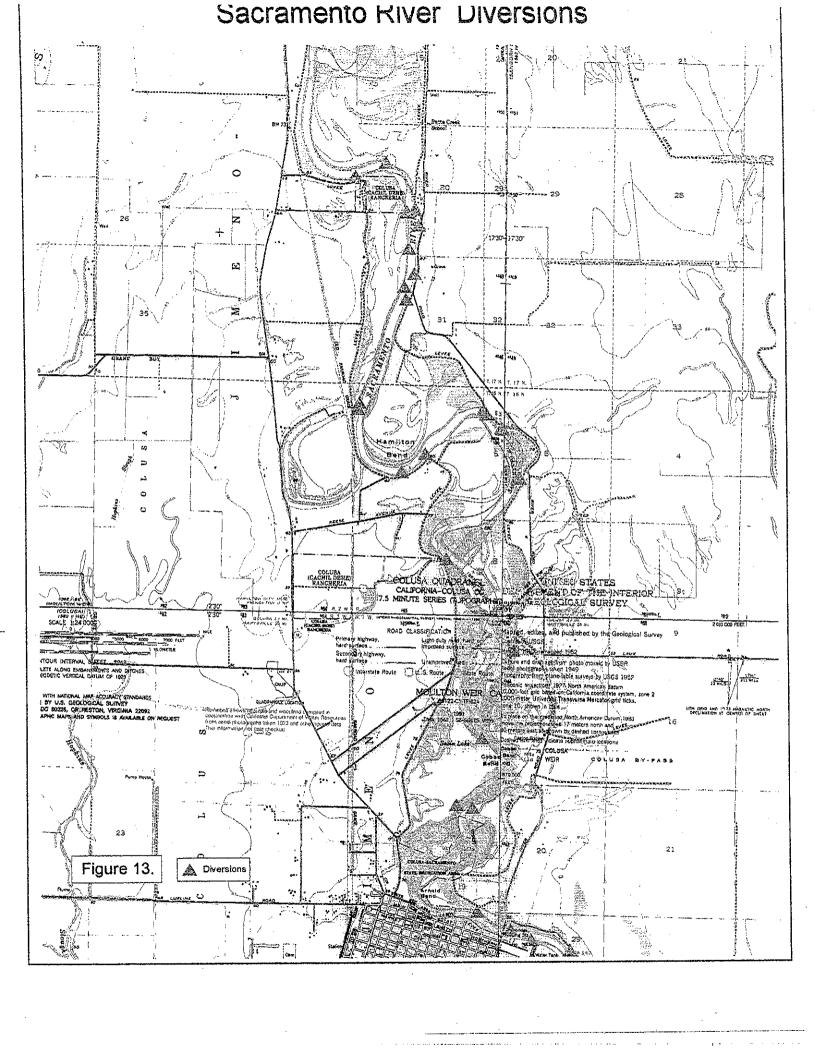


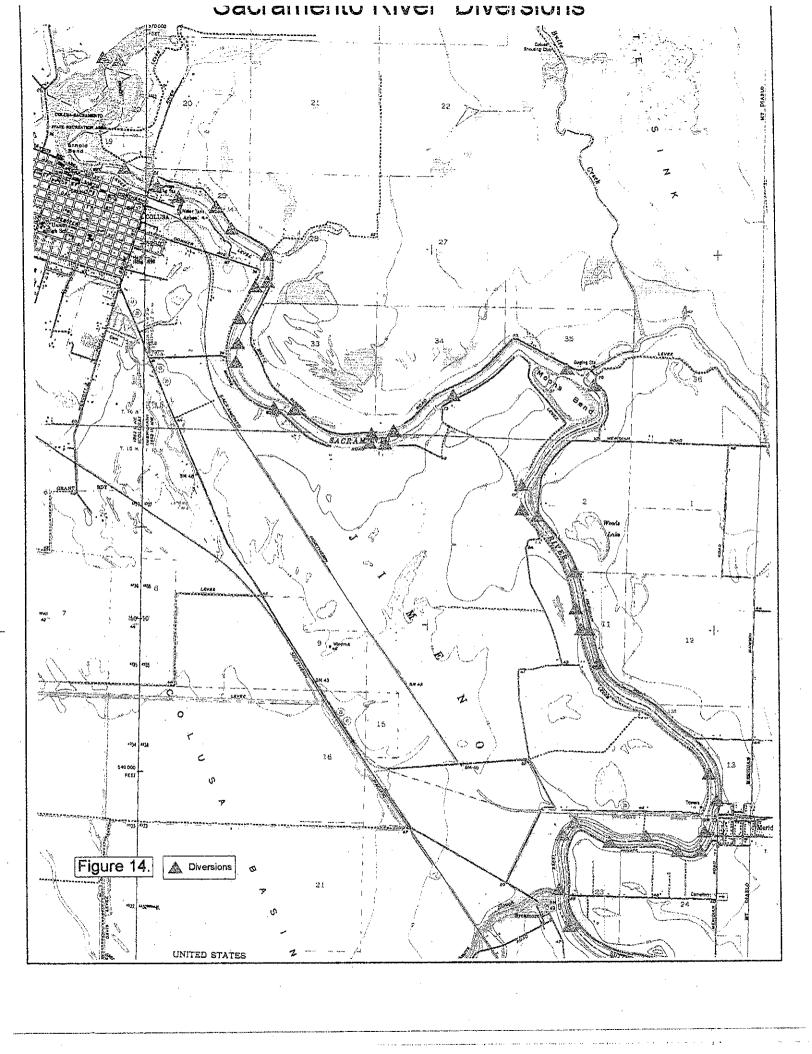


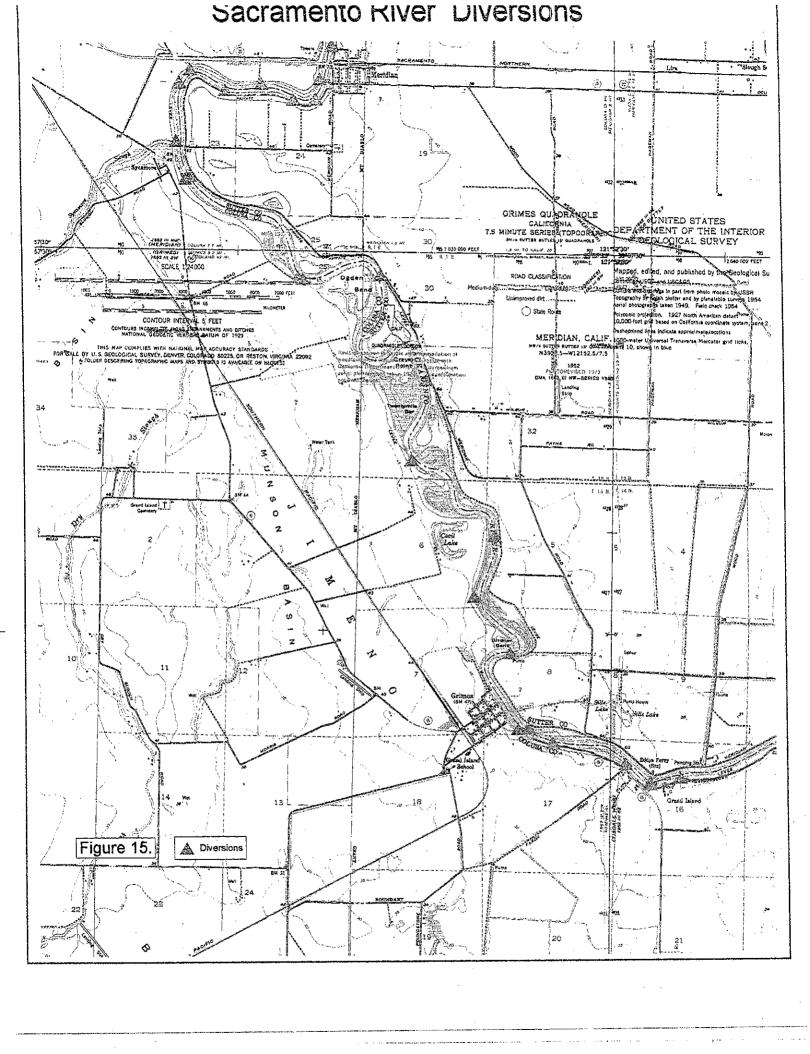


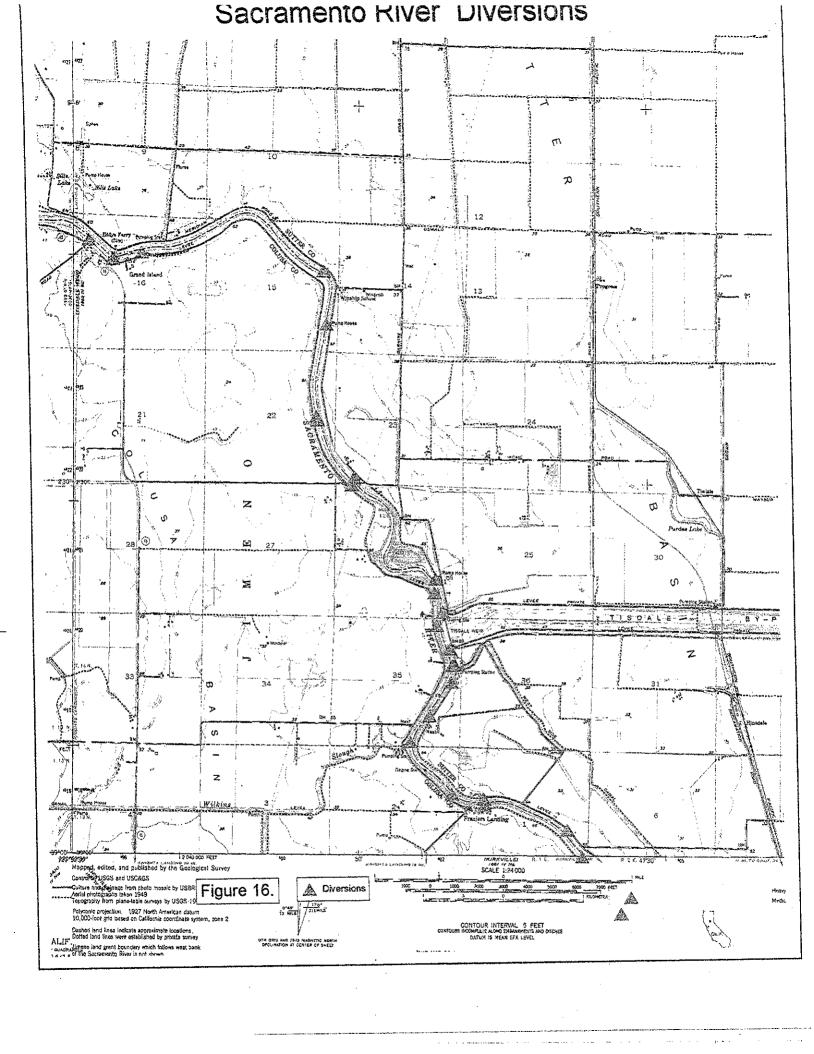


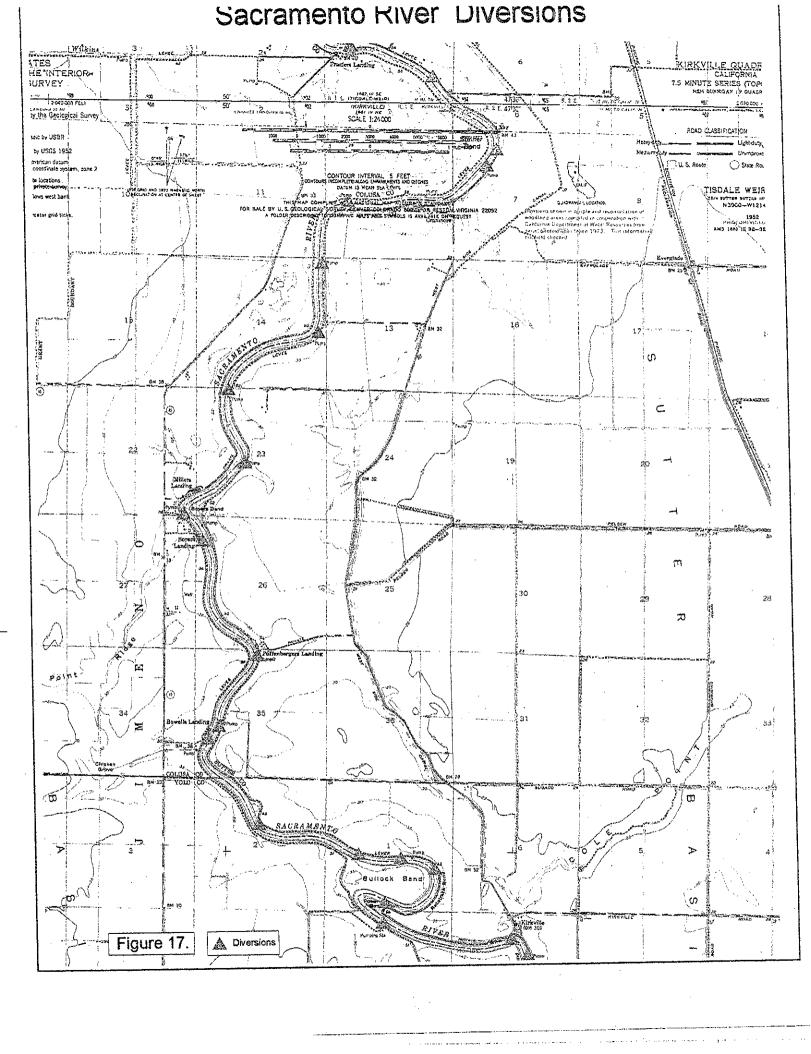


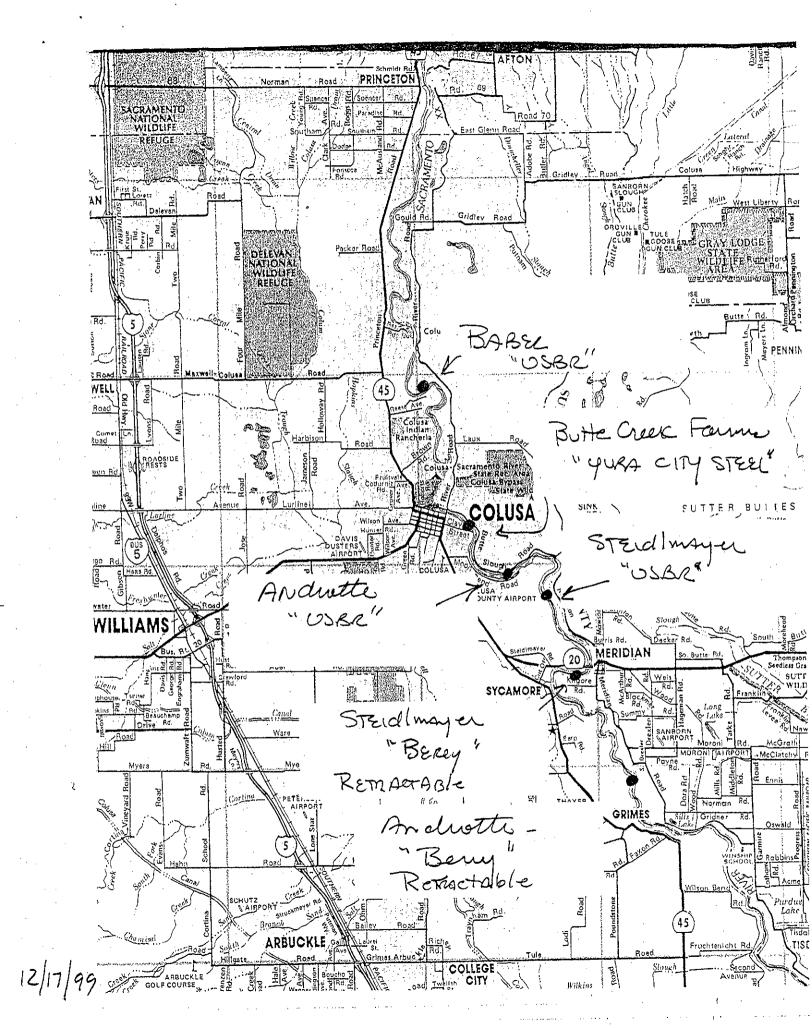












ATTACHMENT B

Next Phase Funding - Project Status

Sacramento River Small Diversion Fish Screen Project

This proposal compliments the originally funded CALFED fish screen proposal by expanding the developed technology from slant to vertical diversions. The original proposal assumed that off-the-shelf technology would adequately address the fish screen needs of small diversions. However, real world experience proved that present technology did not work in the Sacramento River.

In the fall of 1997, four diversions were screened on the Sacramento River. As of today, three of the larger screens have failed due to the interaction of unique river conditions including high turbidity, sediment load, and vegetative material. This interaction between the river conditions and the screens has resulted in frozen bearings, the failure of the self-cleaning mechanism, clogged filters, and the ultimate implosion of screens at two diversion sites.

In response to these failures, Natural Resource Conservation Service has recommended potential solutions to address the cause of the screen failures. These recommendations include making the screens and backwash pumps retrievable, installing improved filtration and monitoring systems, and connecting safety devices to protect the pumps and screens. Improving engineering design and establishing more control over screen installations will also reduce screen failure. In addition, installation will include the development of an acceptable plan for operation and maintenance of screened facilities. National Marine Fisheries Service has supported the retrievable concept since the inception of the fish screen program and continues to support small diversion fish screen installations along the Sacramento River.

Since current screen technology for diversions less than 40 cfs failed along Sacramento River, Family Water Alliance has recommended the implementation of an adaptive management program. Family Water Alliance believes that screening efforts should be redirected to solving the identified problems before any additional screening mandates come from state and federal agencies. Through actual experience, we know that no proven technology is available to screen small diversions in the Sacramento River, and therefore, the program must step back into the research and development (R&D), or adaptive management phase of this program.

Family Water Alliance, in conjunction with Natural Resource Conservation Service and the participating farmers, removed the failed screens and are installing new prototypes that will be monitored over the next near. These prototypes will incorporate many of the Natural Resource Conservation Service and NMFS recommendations. The failures have provided invaluable information, leading to the next stage of technological development for fish screens.

With 50% of the original funding remaining in the proposal, it is expected that the balance of the scheduled activities will be completed. These activities include: installing additional fish screens, installing monitoring devices, conducting monitoring activities, and completing environmental and administrative project requirements. Implementation issues have centered on previous contractors inability to complete project in a timely fashion

The initial project developed important data for the future success of fish screens in the Sacramento River. This information includes the need for monitoring, trash racks, bypass values, reduction of moving parts and the importance of retractability.

While technology development is often slow and frustrating, numerous farmers have signed up to screen their pumps in spite of the setbacks, continuing to show interest and commitment to the fish-screening program. Over the past three years the National Marine Fisheries Service, California Department of Fish and Game, and Natural Resource Conservation Service have also demonstrated exemplary cooperation and sensitivity to farmers needs. This spirit of cooperation only furthers the partnership between private landowners and agencies.

See attached pictures for project description and cost.

Next Phase Funding Project Description and Cost



Baber

Universal Stream Bottom Retrievable Flat Plate Fish Screen Screened to: 25 CFS Total Cost: \$76,060

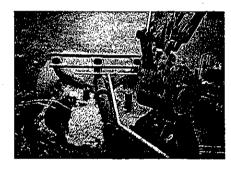


Steidlmayer

Cost CFS: \$3,042

Universal Stream Bottom Retrievable Flat Plate Fish Screen Screened to: 25 CFS Total Cost: \$53,000

Cost /CFS: \$ 2,120



Andreotti

Manifold installed Universal Stream Bottom Retrievable Flat Plate Fish Screen Screened to: 15 CFS

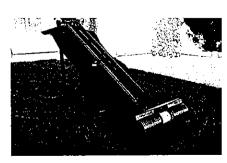
Total Cost Estimate: \$ 55,141

Cost/CFS: \$3,676



Andreotti

Screen Installation at side of bank Universal Stream Bottom Retrievable Flat Plate Fish Screen



Andreotti – ISI Retractable Screen Under Construction

Scaled down model of ISI retractable fish screen with brushed screen cleaning technology

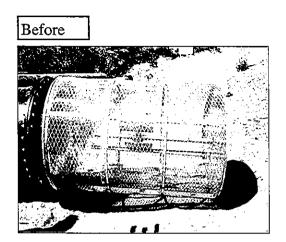
Screened to 15.5 CFS

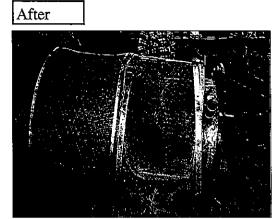
Total Cost Estimate: \$84,468.00

Cost / CFS: \$5,449

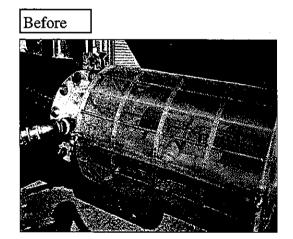
Screen Failures Phase I

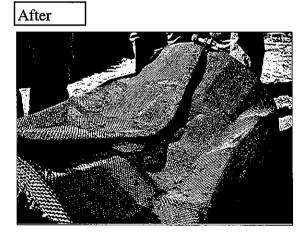
Butte Creek Farms



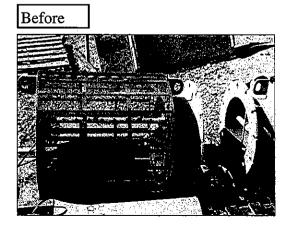


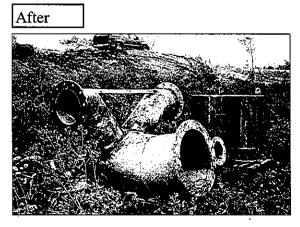
<u>Andreotti</u>



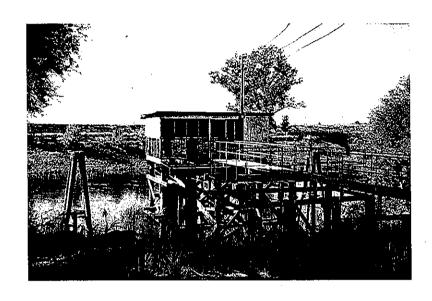


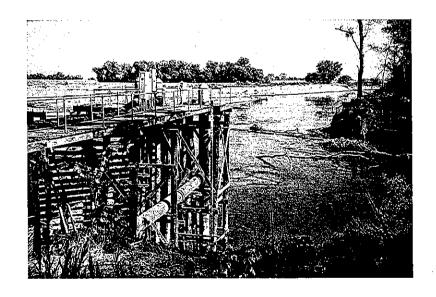
Steidlmayer





Examples of Vertical Diversions





FISHSCREEN PROPOSAL - 5/12/00

					Direct Co	sts			Indirect Costs	
Үеаг	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies & Other Support	Contracts	Sub-Total Direct Costs	Administrative Overhead 12% of Direct	Total Cost
V4	T1. 4	4.00	7.000	4.000					- 3333	
Year 1	Task 1 Task 2	148 178	7,200 8,700	1,800	300 300	800		10,100		10,100
	Task 3	444	21,600	2,200 5,400	800	900 2,300		12,100 30,100		12,100 30,100
	Task 4	4,160	73,400	31,500	1,000	15,700		121,600		136,200
	Task 5	7,100	70,400	01,000	1,000	15,700		121,000	0.000	130,200
	Task 6							o o	ŏ	. 0
Total Co	ost Year 1	4,930	\$110,900	\$40,900	\$2,400	\$19,700	\$0	\$173,900		\$188,500
										7
Year 2	Task 1	148	7,400	1,900	300	800		10,400		10,400
	Task 2	178	8,900	2,200	300	900		12,300		12,300
	Task 3	444	22,300	5,600	800	2,300		31,000		31,000
	Task 4 Task 5	4,160	77,800	33,400	1,000	16,700	207 500	128,900		144,400
	Task 6						287,500 50,000	287,500 50,000		287,500 50,000
Total Co	ost Year 2	4,930	\$116,400	\$43,100	\$2,400	\$20,700	\$337,500	\$520,100		\$535,600
Total O	JSt Teal 2	4,550	\$110,400	\$45,100	\$2,400	\$20,700	\$357,300	\$320,100	\$15,500 (3.66)	\$555,600
Year 3	Task 1		7,600	1,900	300	800		10,600		10,600
·	Task 2		9,200	2,300	300	900		12,700		12,700
	Task 3	l I	23,000	5,700	800	2,300		31,800		31,800
	Task 4	4,160	82,500	35,400	1,000	17,700		136,600		153,000
	Task 5						287,500	287,500		287,500
	Task 6					•	50,000			50,000
Total Co	ost Year 3	4,160	\$ 122,300	\$ 45,300	\$ 2,400	\$ 21,700	\$ 337,500	\$ 529,200	\$ 16,400	\$ 545,600
Year 4	Task 1		3,900	1,000	300	800		6,000		6,000
1041 7	Task 2	1 !	4,700	1,200	300	900		7,100		7,100
	Task 3		11,800	3,000		2,300		17,900		17,900
	Task 4	4,160		37,500	1,000	18,800		144,800		162,200
	Task 5	.,,,,,,,	,		1,000	10,000	287,500		1 11 11 11 11 11 11 11 11 11 11 11 11 1	287,500
	Task 6						50,000			50,000
Total Co	ost Year 4	4,160	\$ 107,900	\$ 42,700	\$ 2,400	\$ 22,800	\$ 337,500	\$ 513,300		
Year 5	Task 1	1	4400	4 000	300	800		C 001		0.000
Tears	Task 2	1	4,100 4,900	1,000 1,200	300			6,200 7,300		6,200 7,300
	Task 3		12,200	3,000	800	2,300		18,300		18,300
	Task 4	4,160		38,600	1,000	19,300		149,000		166,900
	Task 5	3,100	00,100	00,000	1,000	. 10,000	287,500			287,500
	Task 6		1				50,000			50,000
Total C	ost Year 5	4,160	\$111,300	\$43,800	\$2,400	\$23,300	\$337,500			\$536,200
										
Grand	Total All Tasks	000	00.000	7.005	4 500	1.000		10.00		40.000
j	Task 1	296 356			1,500					43,300
	Task 2 Task 3	889			1,500 4,000					51,500 129,100
	Task 4	20,800	,		5,000					762,700
	Task 5	20,000	411,300		5,000					1,150,000
l	Task 6	Ĭ	ŏ		o					200,000
	lotal	22,340				108,200				2,336,600

Attachment C CALFED Fish Screen Budget 2001-2006

Tasks	Year 1	Year 2	Year 3	Year 4	Year 5	Total Program
Program Level Outreach Education/Information	\$9,000	\$9,300 \$11,100	\$9,500 \$11,500	\$4,900 \$5,900	\$5,100 \$6,100	\$37,800 \$45,500
Project Mgt	\$27,000	\$27,900	\$28,700	\$14,800	\$15,200	\$113,600 \$7,000
Travel Noweletter & Supplies	\$1,400 \$4.000	\$1,400 \$4,000	\$4,000	\$4,000	\$4,000	\$20,000
Total	\$52,300	\$53,700	\$55,100	\$31,000	\$31,800	\$223,900
Engineering Technical & Oversight	in the second	000	\$00 P	008 400	\$70.400	\$321500
Engineer Field Office Tachnican Field Office	\$57,400	\$50,400	\$53,400	\$56,600	\$58,300	\$266,200
Travel	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000
Supplies and other Support	\$15,700	\$16,700	\$17,700	\$18,800	\$19,300	\$88,200
Administrative Overhead @ 12%	\$14,600	\$15,500	\$16,400 \$153,000	\$17,400 \$162.200	\$17,900 \$166,900	\$762,700
וטומו) 		•			
Project Level			1		0000	000 000
Construction & Installation	0\$	\$250,000	\$250,000	\$250,000	\$250,000	\$200,000 \$200,000
Monitoring	Q	\$30,000 \$12,500	\$12,500	\$12,500	\$12,500	\$50,000
Adjustments @ 5% of construction	?	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000
Total	\$0	\$337,500	\$337,500	\$337,500	\$337,500	\$1,350,000
TOTAL AMOUNT REQUESTED	\$188,500	\$535,600	\$545,600	\$530,700	\$536,200	\$2,336,600
In-Kind						
Project Mgt: Program level NRCS @20% of Colusa DC (\$50,000)	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Project Level District Conservationists Field Office	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000
Area/State Engineers	\$19,000	\$19,000	\$12,000	\$6,000	\$6,000	\$62,000
Fish Biologist	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$20,000
Area Conservationist	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$20,000
CALFED Liaison	\$1,000	\$1,000 \$53,000	\$1,000	\$1,000 \$40.000	\$1,000 \$40,000	\$5,000 \$232, 000
TOTAL IN-KIND	000,000	000,000	200			

APPLICATION FOR 2. DATE SUBMITTED Applicant Identifier FEDERAL ASSISTANCE

I EDEITAE AGGIOTAT	101			
1. TYPE OF SUBMISSION:		3. DATE RECEIVED BY	STATE	State Application Identifier
Application	Preapplication			
Construction	Construction	4. DATE RECEIVED BY	FEDERAL AGENCY	l Federal Identifier
Non-Construction	Non-Construction			<u> </u>
5. APPLICANT INFORMATION Legal Name:			Organizational Unit:	
USDA Natural Res	courges Conser	wation Servi	4 -	County NRCS
Address (give city, county, State,		vacion bervi		number of person to be contacted on matters involving
100 Sunrise Blv			this application (give a	
Colusa, CA 9593		•	Dan Z. Ma	
6. EMPLOYER IDENTIFICATIO	N NUMBER (EIN):	·	7. TYPE OF APPLIC	ANT: (enter appropriate letter in box)
72-0564	8 3 0		A. State	H. Independent School Dist.
8. TYPE OF APPLICATION:			B. County	State Controlled Institution of Higher Learning
·	v	Revision	C. Municipal	J. Private University
<u></u>	v continuation	L nevision	D. Township	K. Indian Tribe
If Revision, enter appropriate let	ter(s) in box(es)	· · 🔲	E. Interstate	L. Individual
		<u> </u>	F. Intermunicipal	M. Profit Organization
A. Increase Award B. Dec D. Decrease Duration Other	· · · · · · · · · · · · · · · · · · ·	e Duration	G. Special District	N. Other (Specify) Federal
		•	9. NAME OF FEDER	AL AGENCY:
			CALFED	
10. CATALOG OF FEDERAL D	OMESTIC ASSISTANCE N	UMBER:	11. DESCRIPTIVE T	ITLE OF APPLICANT'S PROJECT:
			Sacramento	River Small Fish Screen
	•			or vertical pump diversions
TITLE:			- Ilogiam io	of vertical pamp arverbine
12. AREAS AFFECTED BY PR	OJECT (Cities, Counties, S.	tates, etc.):		
Glenn, Colusa,	& Sutter Count	ties, CA		
13. PROPOSED PROJECT	14. CONGRESSIONAL D	l istricts of: an Doug Ose -	- 3rd Distri	.ct
Start Date Ending Date	la Applicant			mento River Fish Screen
1/2001 1/2006	Family Wate	r Alliance	Program	
15. ESTIMATED FUNDING:			16. IS APPLICATION	N SUBJECT TO REVIEW BY STATE EXECUTIVE
	\$2,359,800		ORDER 12372 P	PROCESS?
a. Federal	\$ 2,	336,600 [®]		
				EAPPLICATION/APPLICATION WAS MADE
b. Applicant	\$	232,000 ~~		LE TO THE STATE EXECUTIVE ORDER 12372
		00	PROCES	S FOR REVIEW ON:
c. State	\$	Pending	DATE	
d. Local	 \$	renaing	DATE	
G. LOCAI	P	•	h No M-PROGE	RAM IS NOT COVERED BY E. O. 12372
e. Other	\$.00		OGRAM HAS NOT BEEN SELECTED BY STATE
O. Other		, '	FOR RE	·
f. Program Income	\$	00	7	
	*	•	17. IS THE APPLIC	ANT DELINQUENT ON ANY FEDERAL DEBT?
g. TOTAL	\$ 2,	359,800	⊣	" attach an explanation.
18. TO THE BEST OF MY KNO			CATION/PREAPPLICA	ATION ARE TRUE AND CORRECT, THE
	•			THE APPLICANT WILL COMPLY WITH THE
ATTACHED ASSURANCES IF				
a. Type Name of Authorized Re		b. Title		c. Telephone Number
Dan Z. Martynn		District C	onservation:	
d. Signature of Authorized Rep	esenta tive			e. Date Signed
1 1 1	Ca Va			May 12, 2000

Previous Edition Usable Authorized for Local Reproduction

Standard Form 424 (Rev. 7-97) Prescribed by OMB Circular A-102

OMB Approval No. 0348-0044

BUDGET INFORMATION - Non-Construction Programs Also, please see attached proposed budget detail.

		SECT	SECTION A - BUDGET SUMMARY	IMARY		
Grant Program	Catalog of Federal	Estimated Unc	Estimated Unobligated Funds		New or Revised Budget	424
or Activity	Number (h)	Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. CALFED		\$	9	\$ 2,336,600	\$ 232,000	\$ 2,359,800
5		:				
6						
4.						
5. Totals		l \$	- -	\$ 2,336,600	\$ 232,000	\$ 2,359,800
The state of the s		SECTIC	ECTION B - BUDGET CATEGORIES	GORIES		
6. Object Class Categories		3	-	GRANT PROGRAM, FUNCTION OR ACTIVITY	(4)	1 Otal (5)
a. Personnel		\$ 568,800	5 <u>\$</u>	\$	\$	\$ 568,800
b. Fringe Benefits	S	215,800				215,800
c. Travel		12,000				12,000
d. Equipment						1
e. Supplies		108,200				108,200
f. Contractual		1,350,000				1,350,000
g. Construction		1				1
h. Other		į.				
i. Total Direct Ch	i. Total Direct Charges (sum of 6a-6h)	2,254,800				2,254,800
j. Indirect Charges	sə	81,800				81,800
k. TOTALS (sum of 6i and 6j)	n of 6i and 6j)	\$2,336,600	\$	ક્ક	₩	\$ 2,236,600
7. Program Income		↔	. ↔	\$	€	€9
		Autho	Authorized for Local Reproduction	duction	Stan	Standard Form 424A (Rev. 7-97)

Prescribed by OMB Circular A-102

SECTION C	SECTION C - NON-FEDERAL RESOURCES	URCES		
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. CALFED - In-Kind Contribution	\$ 232,000	\$	\$	\$ 232,000
9.				-
10.				
12. TOTAL (sum of lines 8 - 11)	\$ 232,000	\$	\$	\$ 232,000
· 在一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	SECTION D - FORCASTED CASH NEEDS	NEEDS		
Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	45	⋄	\$	40-
14. NonFederal				
15. TOTAL (sum of lines 13 and 14)	\$	·	\$	\$
SECTION E BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT	EDERAL FUNDS NEED	ED FOR BALANCE OF THE	BALANCE OF THE PROJECT	
(a) Grant Program	(h) Cirot	FULUNE FUNDI	(d) Third	(e) Fourth
16.	\$ \$	\$	\$	w.
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	v.	€7>	<₽	\$
SECTION F	SECTION F - OTHER BUDGET INFORMATION	RMATION		
21. Direct Charges: Contractural-Fish Screen materials, construction & installation by contracted indiv	rials, 22. Indirect Charges: individuals.	harges: Administration	ration Overhead	d 12% of direct
23. Remarks:				

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Standard Form 424A (Rev. 4-92) Page 2



Family Water Alliance

(530) 438-2026 Fax: (530) 438-2940 E-mail: fwa@mako.com

"Every Day is Earth Day on the Farm"

P. O. Box 365, Maxwell, California 95955

May 14, 2000

Colusa Co. Board of Supervisors 546 Jay Street Colusa, CA 95932

Sutter Co. Board of Supervisors 463 2nd Street Yuba City, CA 95993

Glenn Co. Board of Supervisors 526 W. Sycamore Street Willows, CA 95988

Dear Boards of Supervisors:

Family Water Alliance (FWA) in partnership with the U.S.D.A. Natural Resource Conservation Service (NRCS) will continue to work with small agricultural diverters to install fish screens on irrigation pumps on the Sacramento River. To accomplish this goal, FWA and NRCS will be submitting grant proposals through CALFED, and other funding sources, for different project locations in Glenn, Colusa, and Sutter Counties.

In accordance with the CALFED Bay-Delta Ecosystem Restoration Projects and Program 2001 Proposal Solicitation Package, this letter and the attached proposal will provide advance notification regarding potential construction or restoration actions that could occur within your jurisdiction.

Please retain a copy of this letter and proposal for your records. We will be submitting a copy of this letter in our proposal to CALFED.

As per the CALFED requirements, your Board will be notified of any work that will be taking place in their jurisdiction if the proposal package is accepted and projects implemented.

Should you have any questions, feel free to contact Family Water Alliance at (530) 438-2026, or Dan Martynn, NRCS, at (530) 458-2931.

Sincerely.

Susan A. Sutton

Family Water Alliance

Dan Martynn

Natural Resource Conservation Service

cc: Glenn County RCD Sutter County RCD

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. <u>Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.</u>

1.	Do any of the actions included in the proposal require compliance with either the California	Environmental Quality Act
	(CEQA), the National Environmental Policy Act (NEPA), or both?	• *
		•

X			
YES		•	NO

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.

3. If you answered no to #1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.

- 4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws.

 Describe where the project is in the compliance process and the expected date of completion.

 Environmental effects of this action are addressed in the programmatic EIS (CALFED). Through the State and Federal permit process, cooperating landowners, with NRCS assistance, will be in compliance with CEQA/NEPA. The environmental effects associated with proposed actions are highly beneficial, with minimal short-term adverse effects.
- 5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

The Small Fish Screen Program is a voluntary program whereby willing landowners sign participation agreements. There are no "access" issues or problems since the landowners are actively involved with the project.

Please indicate what permits or or all boxes that apply.	her approvals may be required for the activities contained in your proposal.	Check
an ooke mat appry.		
LOCAL		
Conditional use permit	_	
Variance	_	•
Subdivision Map Act approval		
Grading permit	·	
General plan amendment	<u> </u>	
Specific plan approval		
Rezone		
Williamson Act Contract		
cancellation		
Other		
(please specify)		
None required		
<u>STATE</u>		
CESA Compliance	$\underline{\mathbf{x}}$ (CDFG)	
Streambed alteration permit	$\underline{\mathbf{x}}$ (CDFG)	
CWA § 401 certification	(RWQCB)	
Coastal development permit	(Coastal Commission/BCDC)	•
Reclamation Board approval	X	
Notification	(DPC, BCDC)	
Other		
(please specify)		
None required		
,		
<u>FEDERAL</u>		
ESA Consultation	$\underline{\mathbf{x}}$ (USFWS)	
Rivers & Harbors Act permit	(ACOE)	
CWA § 404 permit	X (ACOE)	
Other		
(please specify)		
None required		

DPC = Delta Protection Commission CWA = Clean Water Act CESA = California Endangered Species Act USFWS = U.S. Fish and Wildlife Service ACOE = U.S. Army Corps of Engineers

6.

ESA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = Regional Water Quality Control Board
BCDC= Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. <u>Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.</u>

	or restrictions in land use (i.e. co				
	YES		$\frac{X}{NO}$		
2.	If NO to # 1, explain what type Modification of exi Sacramento River.				
3.	If YES to # 1, what is the propo	sed land use change or restr	iction under the proposal?		
4.	If YES to # 1, is the land curren	tly under a Williamson Act	contract?		
	YES		NO		
5.	If YES to # 1, answer the follow	ing:			
	Current land use Current zoning Current general plan designation	n			
6.	If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on th Department of Conservation Important Farmland Maps?				
	YES	NO	DON'T KNOW		
7.	If YES to # 1, how many acres o	of land will be subject to ph	ysical change or land use re	estrictions under the proposal?	
8.	If YES to # 1, is the property cu	irrently being commercially	farmed or grazed?		
-	YES		NO		
9.	If YES to #8, what are	the number of the total numb	employees/acreer of employees		

10.	Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?			
	YES	X XO		
11.		· · · · · · · · · · · · · · · · · · ·		
12.	If YES to # 10, answer the following:			
	Total number of acres to be acquired under proposal Number of acres to be acquired in fee Number of acres to be subject to conservation easement			
13.	For all proposals involving physical changes to the land or restriction will:	in land use, describe what entity or organization		
	manage the property			
	provide operations and maintenance services	<u>,</u>		
	conduct monitoring	····		
14.	For land acquisitions (fee title or easements), will existing water rights	also be acquired?		
	YES	<u>40</u>		
15.	Does the applicant propose any modifications to the water right or cha	inge in the delivery of the water?		
	YES	NO X		
16.	If YES to # 15, describe	· · · · · · · · · · · · · · · · · · ·		

INTERNAL REVENUE SERVICE DISTRICT DIRECTOR 2 CUPANIA CIRCLE MONTEREY PARK, CA 91754

Date:

MAR 2 3 1993

FAMILY WATER ALLIANCE P O BOX 365 MAXWELL, CA 95955 Employer Identification Number: 68-0262939
Contact Person:
TYRONE THOMAS
Contact Telephone Number: (213) 894-2289

Accounting Period Ending:
December 31
Foundation Status Classification:
170(b)(1)(A)(vi)
Advance Ruling Period Begins:
February 11, 1992
Advance Ruling Period Ends:
December 31, 1996
Addendum Applies:
No

Dear Applicant:

Based on information you supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from federal income tax under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3).

Because you are a newly created organization, we are not now making a final determination of your foundation status under section 509(a) of the Code. However, we have determined that you can reasonably expect to be a publicly supported organization described in sections 509(a)(1) and 170(b)(1)(A)(vi).

Accordingly, during an advance ruling period you will be treated as a publicly supported organization, and not as a private foundation. This advance ruling period begins and ends on the dates shown above.

Within 90 days after the end of your advance ruling period, you must send us the information needed to determine whether you have met the requirements of the applicable support test during the advance ruling period. If you establish that you have been a publicly supported organization, we will classify you as a section 509(a)(1) or 509(a)(2) organization as long as you continue to meet the requirements of the applicable support test. If you do not meet the public support requirements during the advance ruling period, we will classify you as a private foundation for future periods. Also, if we classify you as a private foundation, we will treat you as a private foundation from your beginning date for purposes of section 507(d) and 4940.

Grantors and contributors may rely on our determination that you are not a private foundation until 90 days after the end of your advance ruling period. If you send us the required information within the 90 days, grantors and contributors may continue to rely on the advance determination until we make a final determination of your foundation status.

Letter 1045 (DO/CG)

FAMILY WATER ALLIANCE

If we publish a notice in the Internal Revenue Bulletin stating that we will no longer treat you as a publicly supported organization, grantors and contributors may not rely on this determination after the date we publish the notice. In addition, if you lose your status as a publicly supported organization, and a grantor or contributor was responsible for, or was aware of, the act or failure to act, that resulted in your loss of such status, that person may not rely on this determination from the date of the act or failure to act. Also, if a grantor or contributor learned that we had given notice that you would be removed from classification as a publicly supported organization, then that person may not rely on this determination as of the date he or she acquired such knowledge.

If you change your sources of support, your purposes, character, or method of operation, please let us know so we can consider the effect of the change on your exempt status and foundation status. If you amend your organizational document or bylaws, please send us a copy of the amended document or bylaws. Also, let us know all changes in your name or address.

As of January 1, 1984, you are liable for social securities taxes under the Federal Insurance Contributions Act on amounts of \$100 or more you pay to each of your employees during a calendar year. You are not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Organizations that are not private foundations are not subject to the private foundation excise taxes under Chapter 42 of the Internal Revenue Code. However, you are not automatically exempt from other federal excise taxes. If you have any questions about excise, employment, or other federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Internal Revenue Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Donors may deduct contributions to you only to the extent that their contributions are gifts, with no consideration received. Ticket purchases and similar payments in conjunction with fundraising events may not necessarily qualify as deductible contributions, depending on the circumstances. Revenue Ruling 67-246, published in Cumulative Bulletin 1967-2, on page 104, gives guidelines regarding when taxpayers may deduct payments for admission to, or other participation in, fundraising activities for charity.

You are not required to file Form 990, Return of Organization Exempt From Income Tax, if your gross receipts each year are normally \$25,000 or less. If you receive a Form 990 package in the mail, simply attach the label provided, check the box in the heading to indicate that your annual gross receipts are normally \$25,000 or less, and sign the return.

If you are required to file a return you must file it by the 15th day of

Letter 1045 (DO/CG)

FAMILY WATER ALLIANCE

the fifth month after the end of your annual accounting period. We charge a penalty of \$10 a day when a return is filed late, unless there is reasonable cause for the delay. However, the maximum penalty we charge cannot exceed \$5,000 or 5 percent of your gross receipts for the year, whichever is less. We may also charge this penalty if a return is not complete. So, please be sure your return is complete before you file it.

You are not required to file federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-T, Exempt Organization Business Income Tax Return. In this letter we are not determining whether any of your present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees. If an employer identification number was not entered on your application, we will assign a number to you and advise you of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

If we said in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Because this letter could help us resolve any questions about your exempt status and foundation status, you should keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown in the heading of this letter:

Sincerely yours,

Michael J. Quinn District Director

NONDISCRIMINATION COMPLIANCE STATEMENT

\$TD. 19 (REV. 3-95)

COMPANY NAME

The company named above (herinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical condition (cancer), age (over 40), marital status, denial of family care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

SUSAD A. Sutton			
DATE EXECUTED /	EXECUTED IN THE COUNTY OF		
5/12/00	Colusa		
PROSPECTIVE CONTRACTOR'S SIGNATURE			
Jugan a Julton			
PROSPECTIVE CONTRACTOR'S TITLE		•	
Propedent	•		
PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME			
Family Water allance			

U.S. DEPARTMENT OF AGRICULTURE

CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS (GRANTS) ALTERNATIVE I - FOR GRANTEES OTHER THAN INDIVIDUALS

This certification is required by the regulations implementing Section 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D: 41 U.S.C.701 et seq.), 7 CFR Part 3017. Subpart F, Section 3017.600, Purpose. The January 13, 1989, regulations were amended and published as Part II of the May 25, 1990 Federal Register (pages 21681-21691). Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the grant.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 3)

Alternative I

- A. The grantee certifies that it will or will continue to provide a drug-free workplace by:
 - (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 - (b) Establishing an ongoing drug-free awareness program to inform employees about -
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
 - (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
 - (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will -
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
 - (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position

AD-1049 (REV 5/90)

title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted -
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended;
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or, local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).
- B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, State, zip code)

37 OAK Sycell

Waxwell a 97955

Check If there are workplaces on file that are not identified here.

Family WATK Alliance
Organization Name

Award Number or Project Name

SUSAN A Syttem President

Name and Title of Authorized Representative

Signature

Signature

Date

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
- 2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- 3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- 5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation

- Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (a) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
- 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

- 9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
- 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

- 12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
- 13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- 14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- 16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- 17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Wo an Julion	President
Family Water allenn	DATE SUBMITTED 5/12/00

State of California DEPARTMENT	FOF WATER RESOURCES	The Resources Agency
	Agreement No.:	
	Exhibit:	
NONCOLLUSION AFFIDAVIT TO BE BIDDER AND SUBMITTED WITH BID	EXECUTED BY FOR PUBLIC WORKS	•
STATE OF CALIFORNIA COUNTY OF COLUSA))es _)	
Susan a Sutton	, being first du	ly sworn, deposes and
(name)	A.	of
that he or she is rusidu		OI
- Family Water	Collance (the bidder).	
behalf of, any undisclosed person, por corporation; that the bid is genuine not directly or indirectly induced or so and has not directly or indirectly collubidder or anyone else to put in a shall that the bidder has not in any manner communication, or conference with a bidder, or to fix any overhead, profit, other bidder, or to secure any advant of anyone interested in the proposed are true; and, further, that the bidder bid price or any breakdown thereof, data relative thereto, or paid, and will company, association, organization, to effectuate a collusive or sham bid DATED:	e and not collusive or sham blicited any other bidder to ided, conspired, connived, in bid, or that anyone shall ir, directly or indirectly, sour myone to fix the bid price of or cost element of the bid plage against the public bod contract; that all statement has not, directly or indirectly or the contents thereof, or on the contents thereof, or only bid depository, or to any my hard the contents thereof.	that the bidder has put in a false sham bid; or agreed with any refrain from bidding; the bidder or any other price, or of that of any yewarding the contract its contained in the bid lity, submitted his or her divulged information or proporation, partnership,
	May 12,	2000
(Notarial Seal)	Mary	y E Harrison
DWR 4205 (New 4/90, Master Current 3/99)	,	neotary Public)

MARY E. HARRISON
Commission # 1127230
Notary Public -- Collifornia
Colusa County
My Comm. Expires Apr 3, 2001

STATE OF CALIFORNIA

DEPARTMENT OF WATER RESOURCES

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Choset name of	city where bids will	be coened)	, California, on	· Ursert date of bld	opening)
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Copy	have the exact descrip	tion of work, including	location, as it appears on t	he proposal)	
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NOTE: Signatures of those executing for the surety must be properly acknowledged.

DWE 4021 (Rev. 8/94)

FWA will complete this Bond RECIEPT & Notification of proposal review by appropriate Lisan a